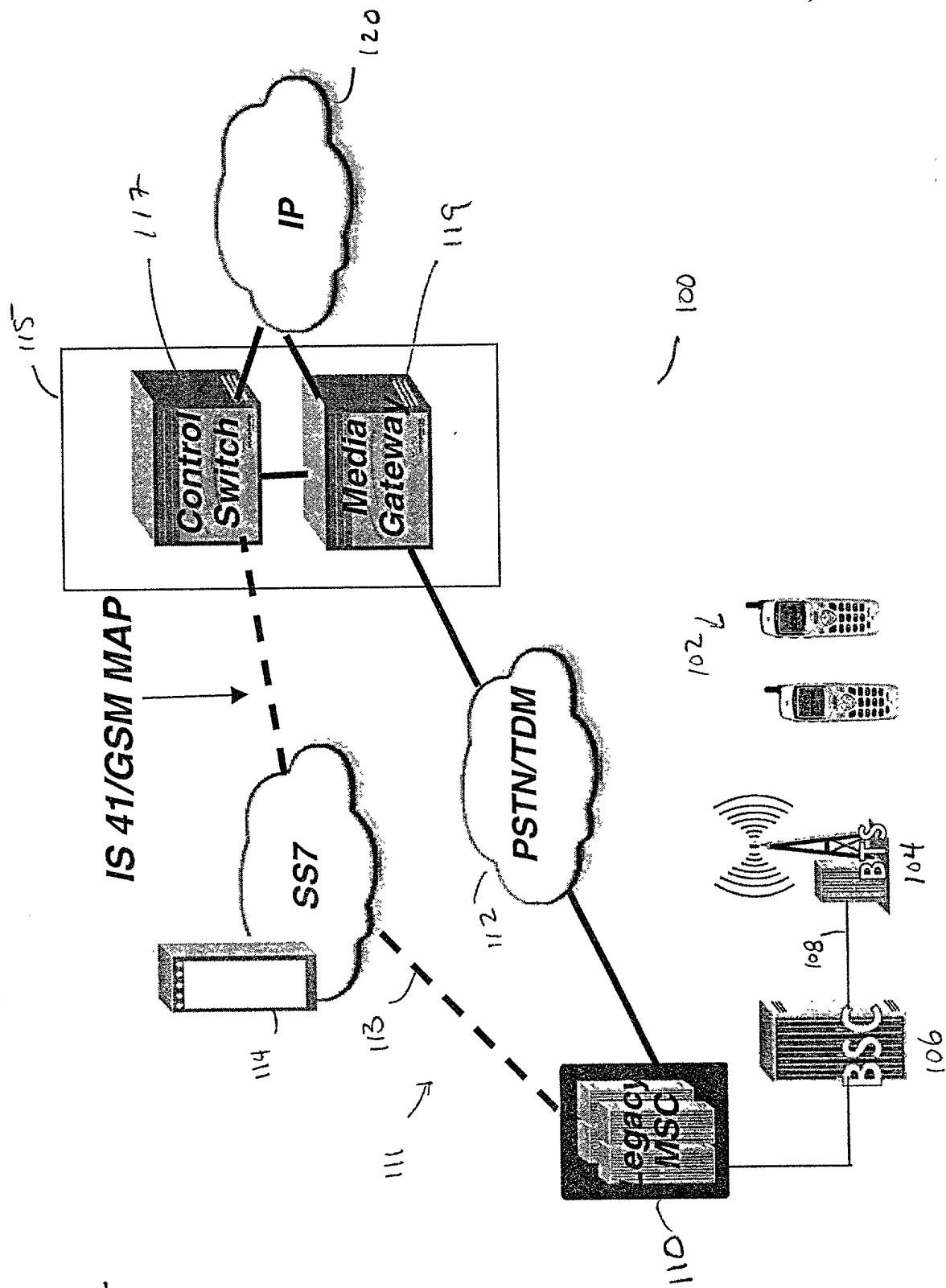


Fig. 1
Prior Art



200 201 202 203 204 205 206 207 208

Fig. 2
Prior Art

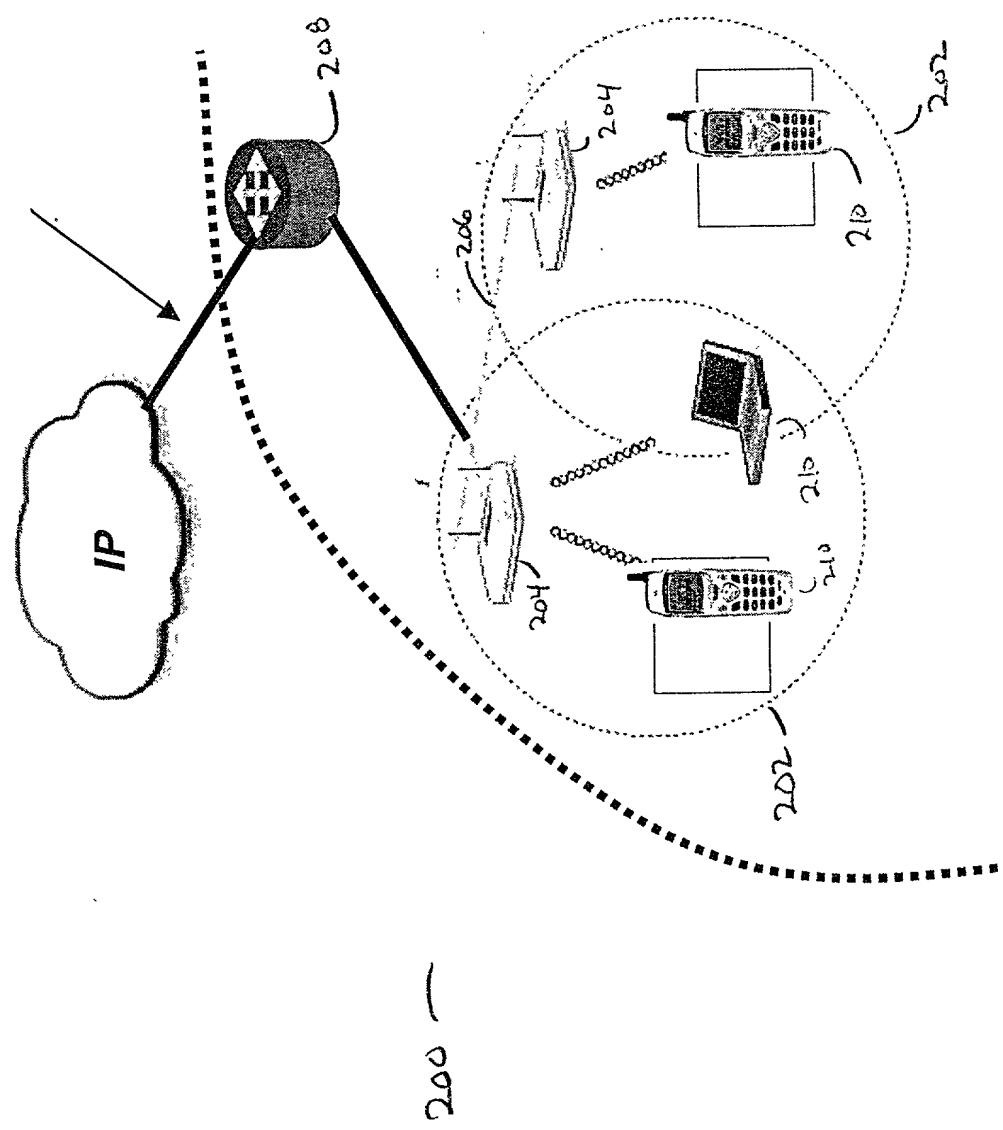


Fig. 3

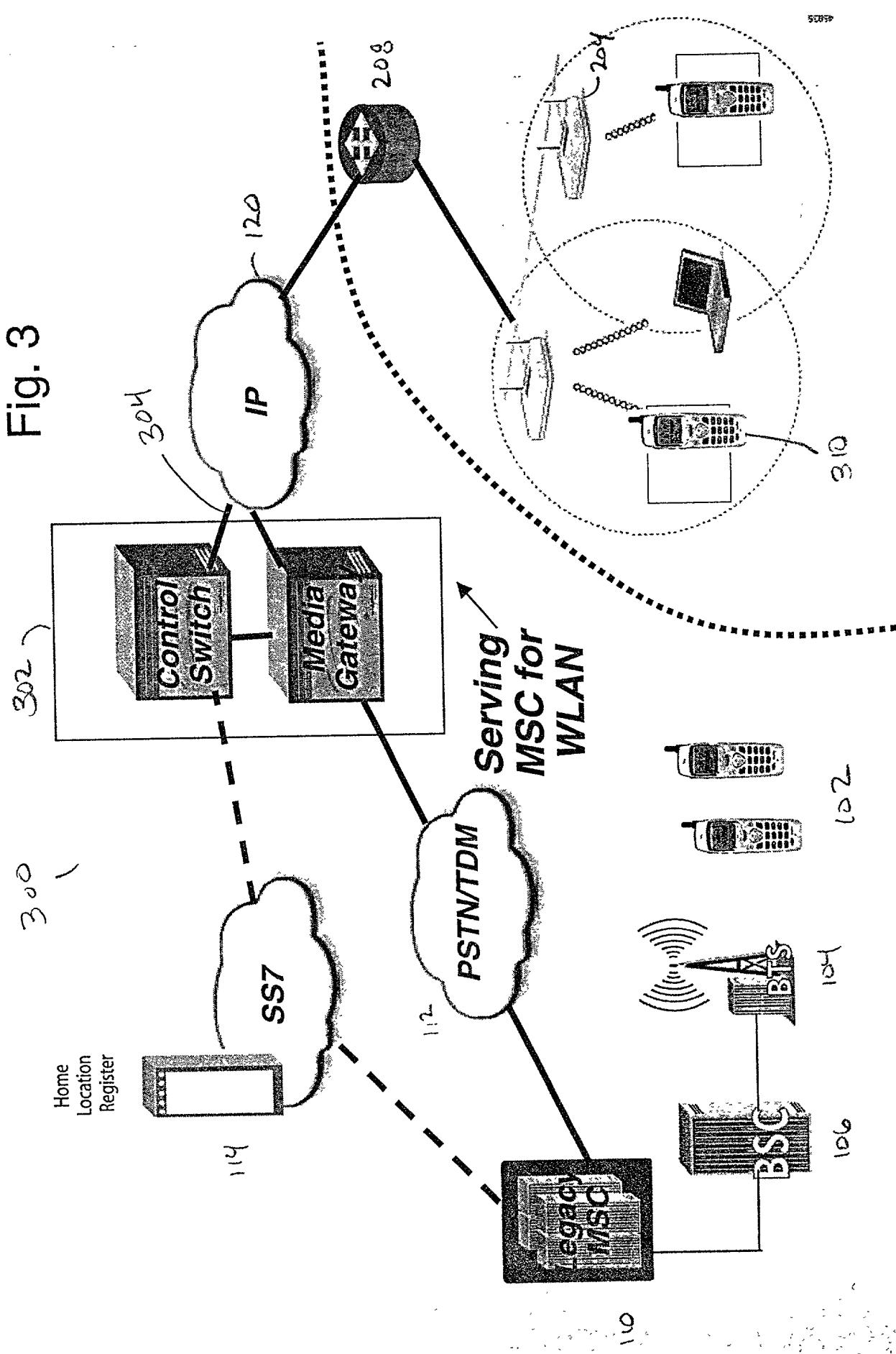
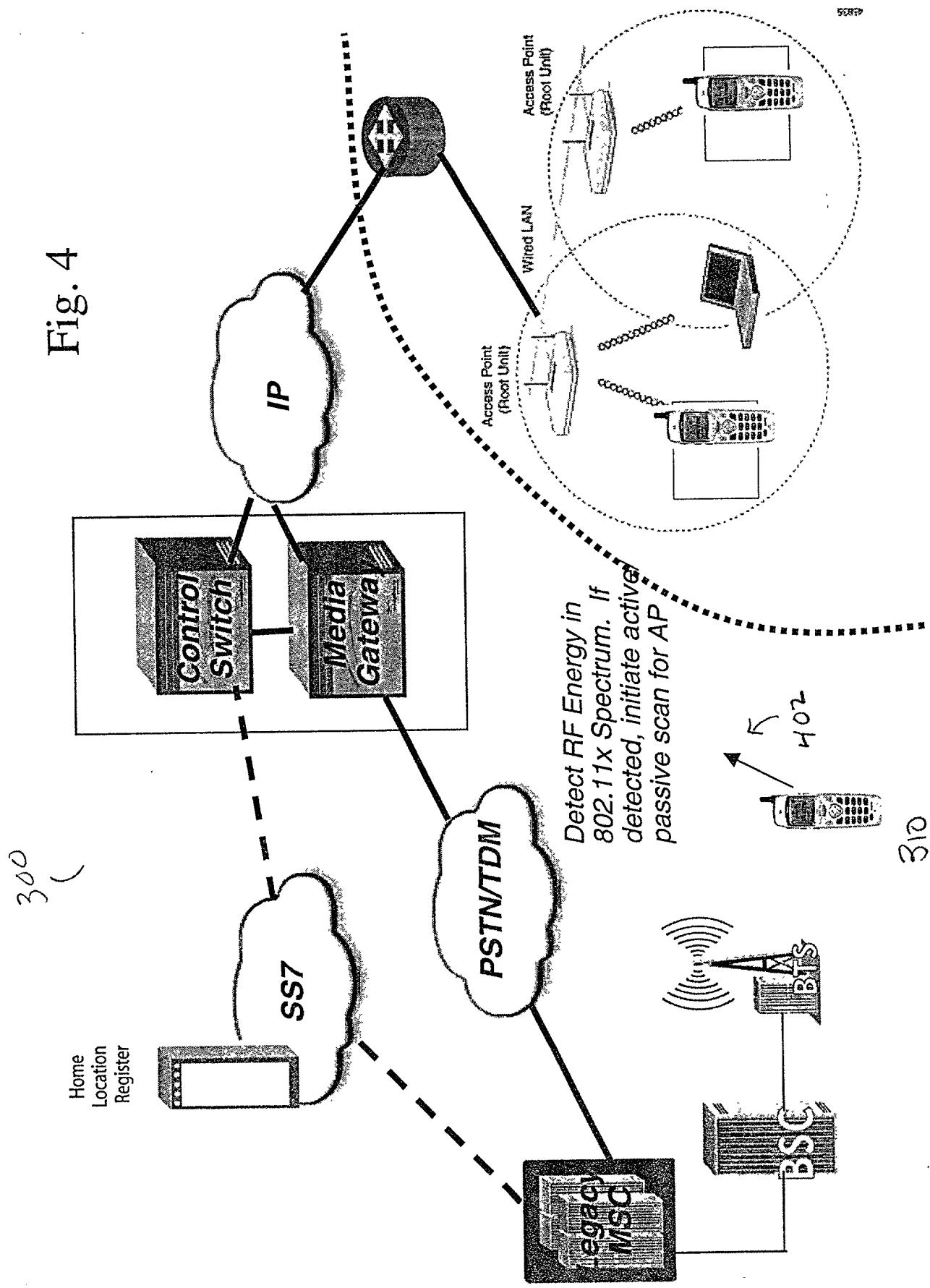


Fig. 4



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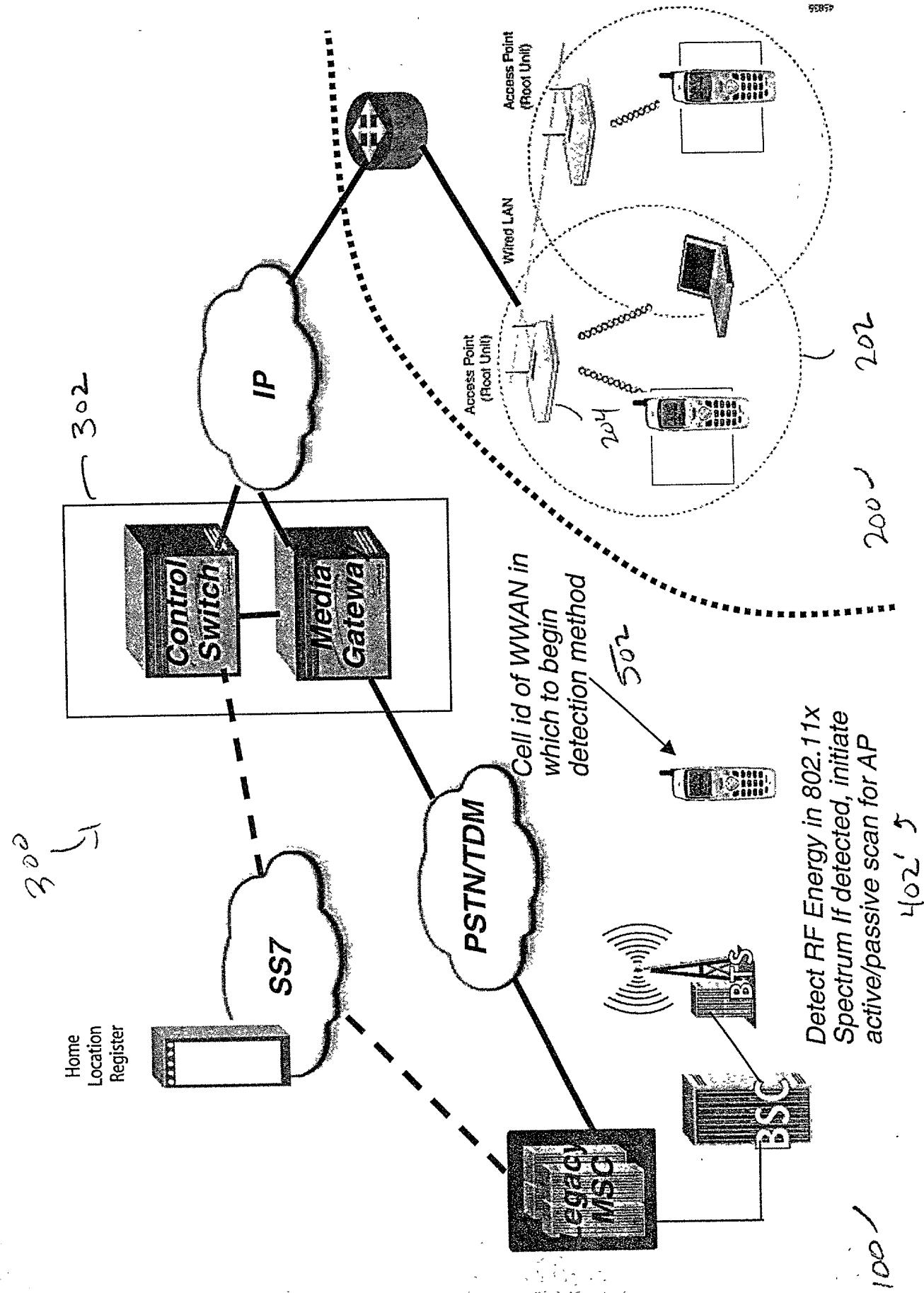


Fig. 6

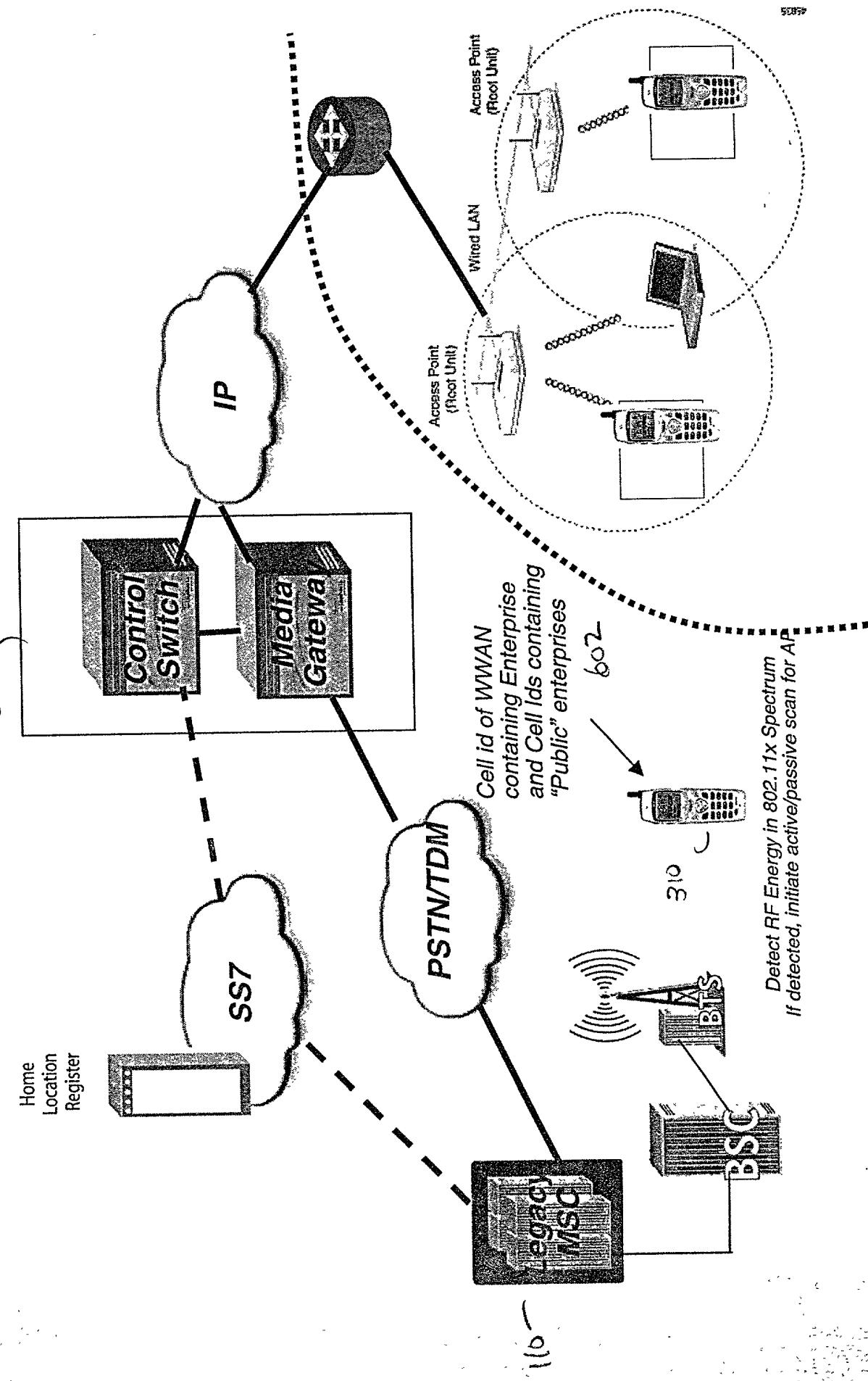


Figure 7

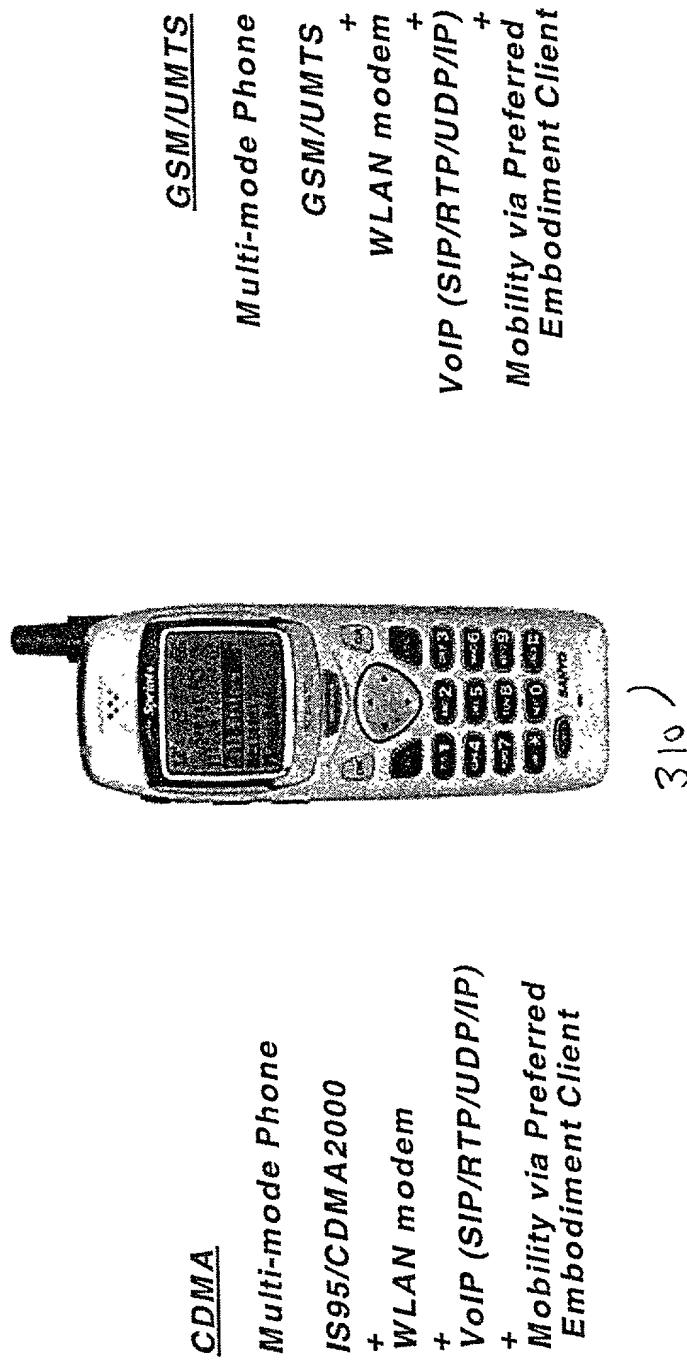


Fig. 8

2022-07-22 10:22:30

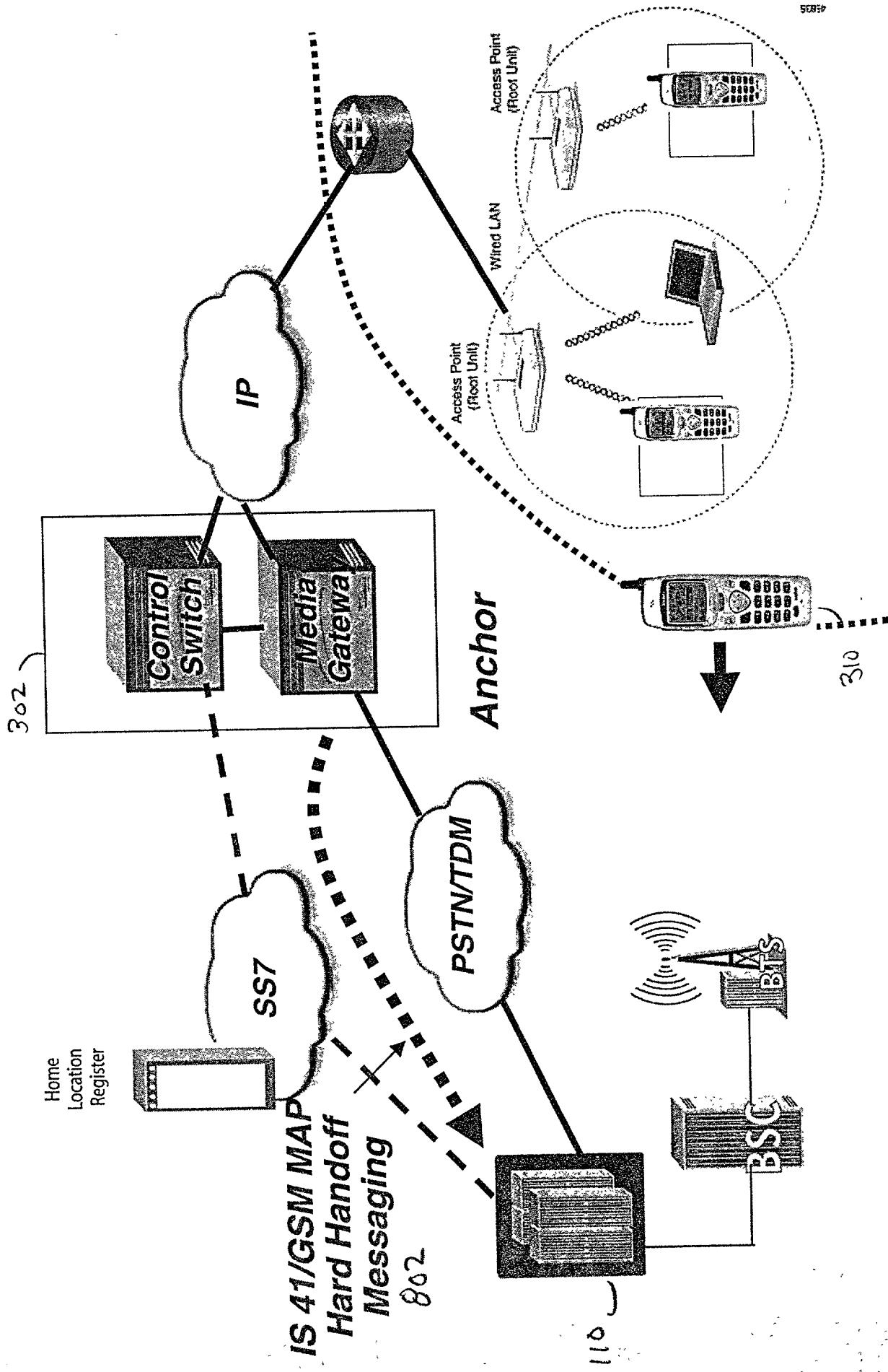


Fig. 9

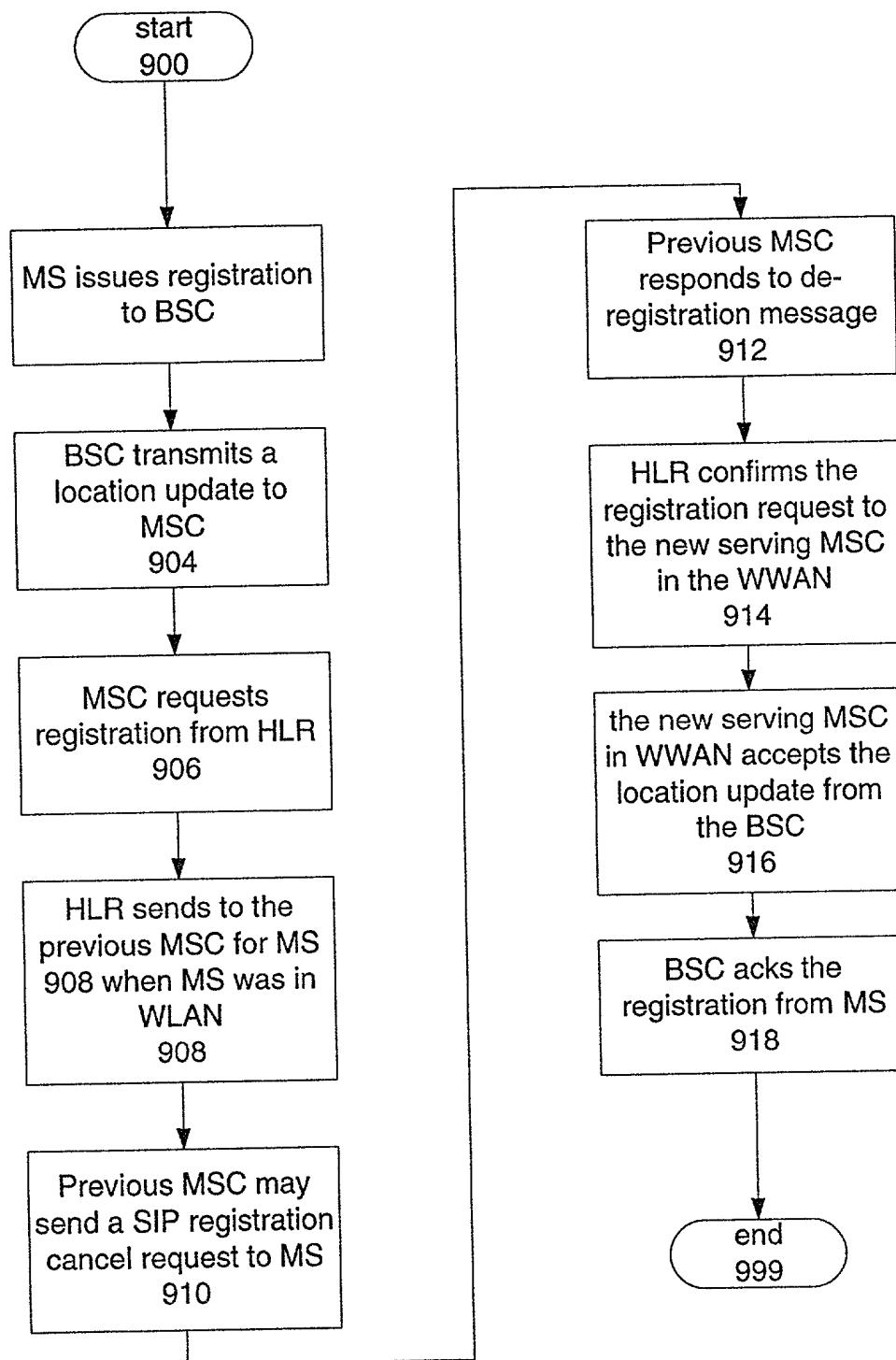


Figure 10

MS leaves 802.11 MSC area to IS41 MSC area

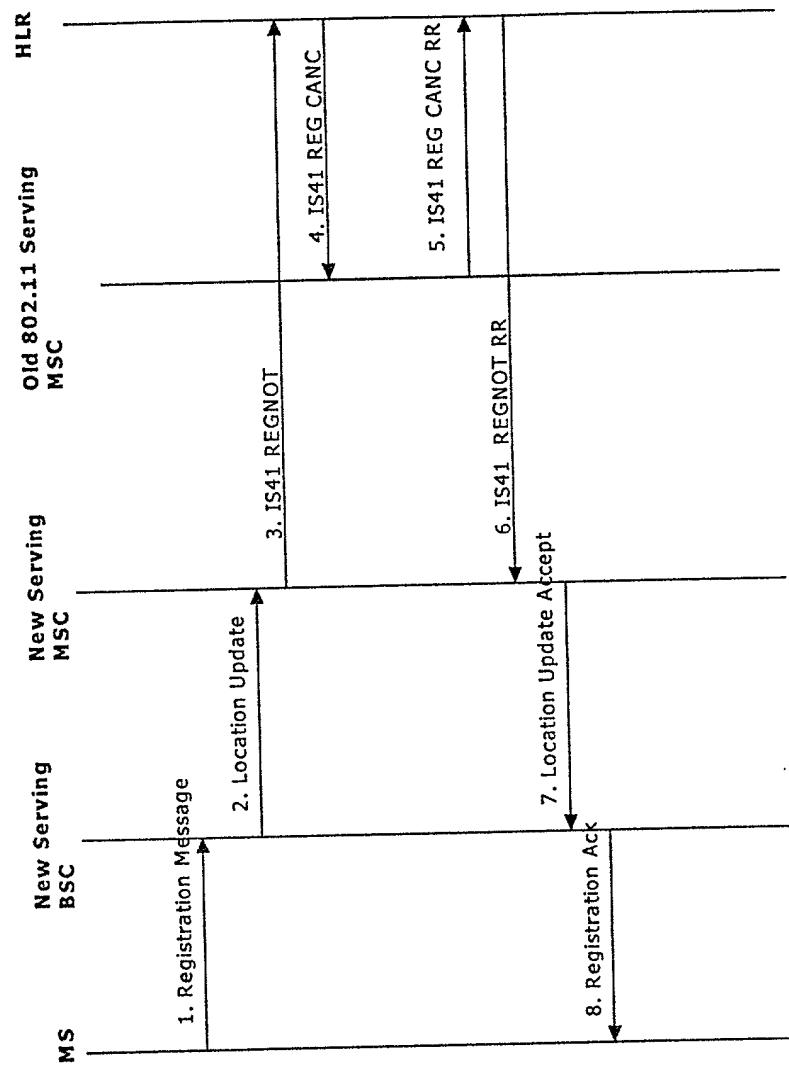


Figure 11

MS leaves 802.11 MSC area to GSM MSC area

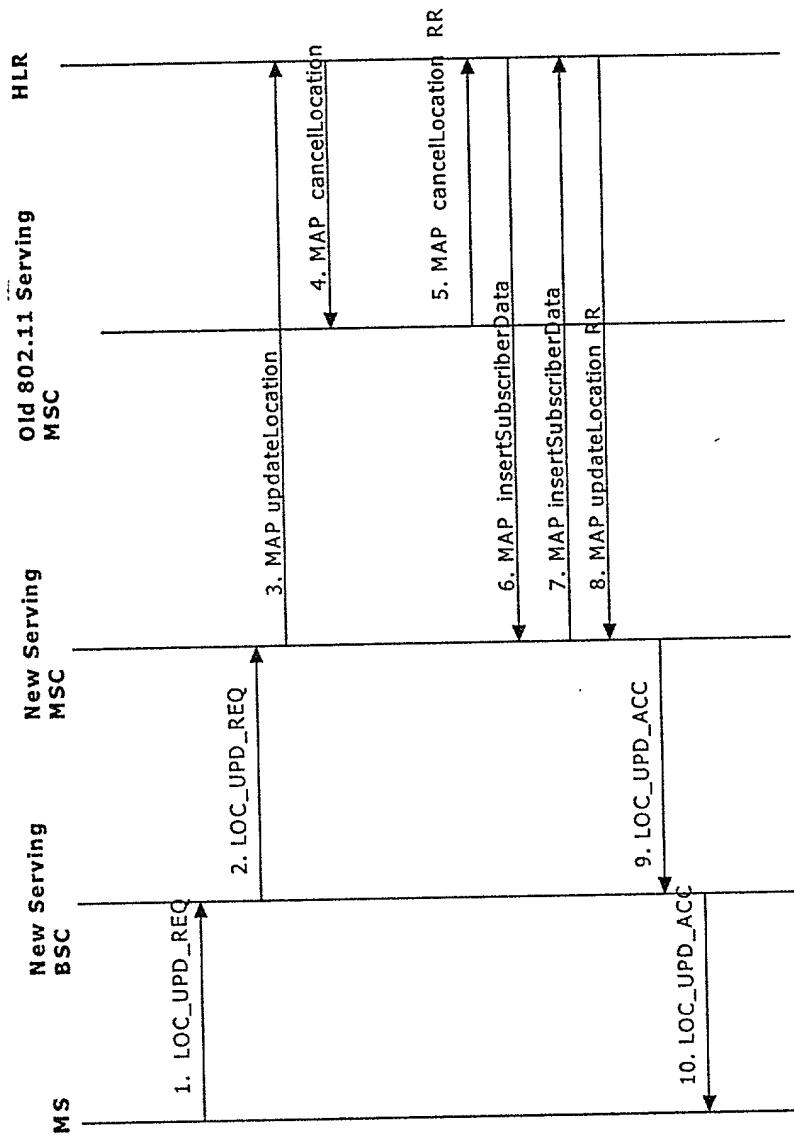


Fig. 12

3GPP TS 25.450 (2017-03)

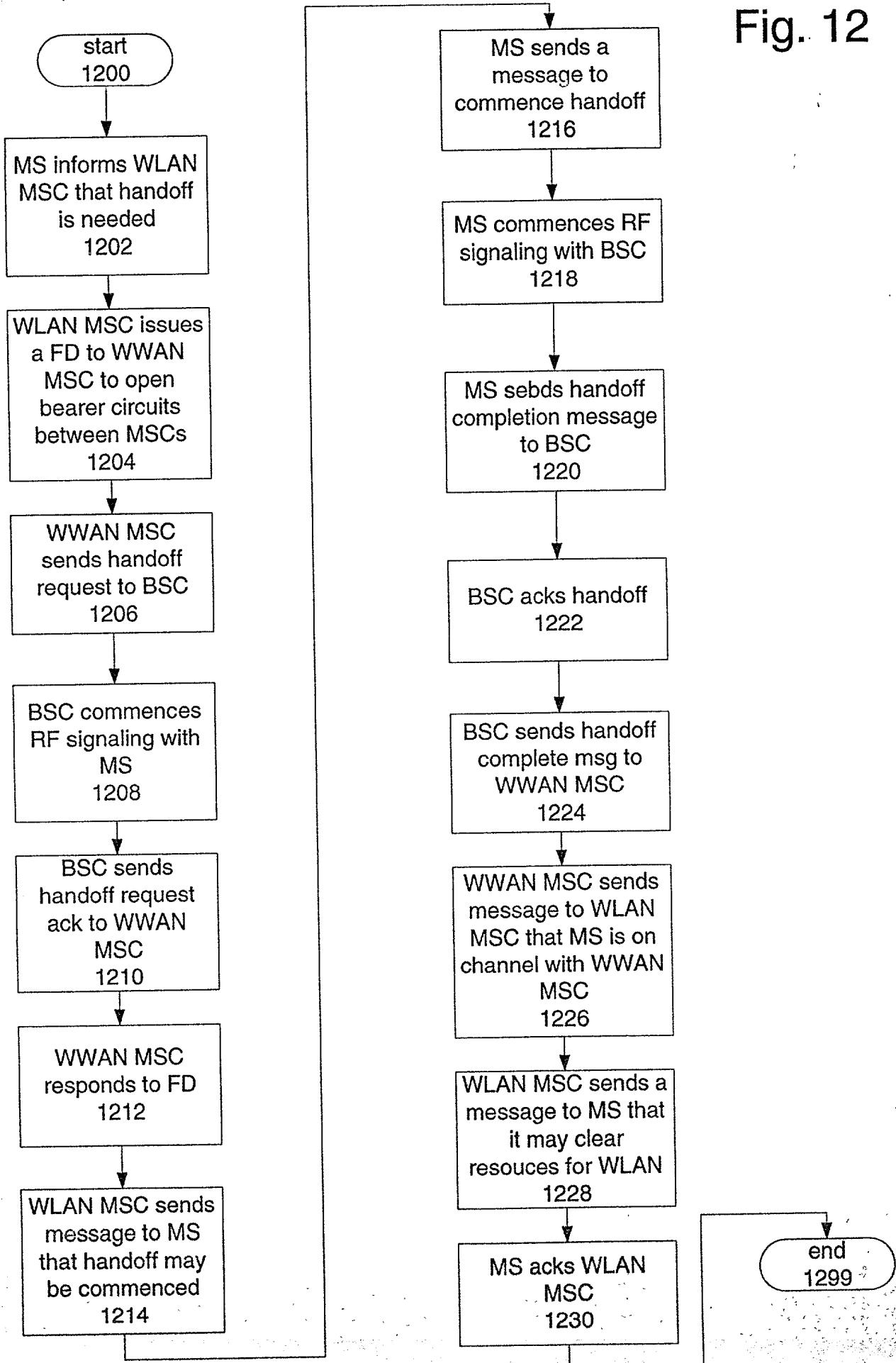


Figure 13

Hard Handoff from 802.11 MSC to Legacy IS41 MSC

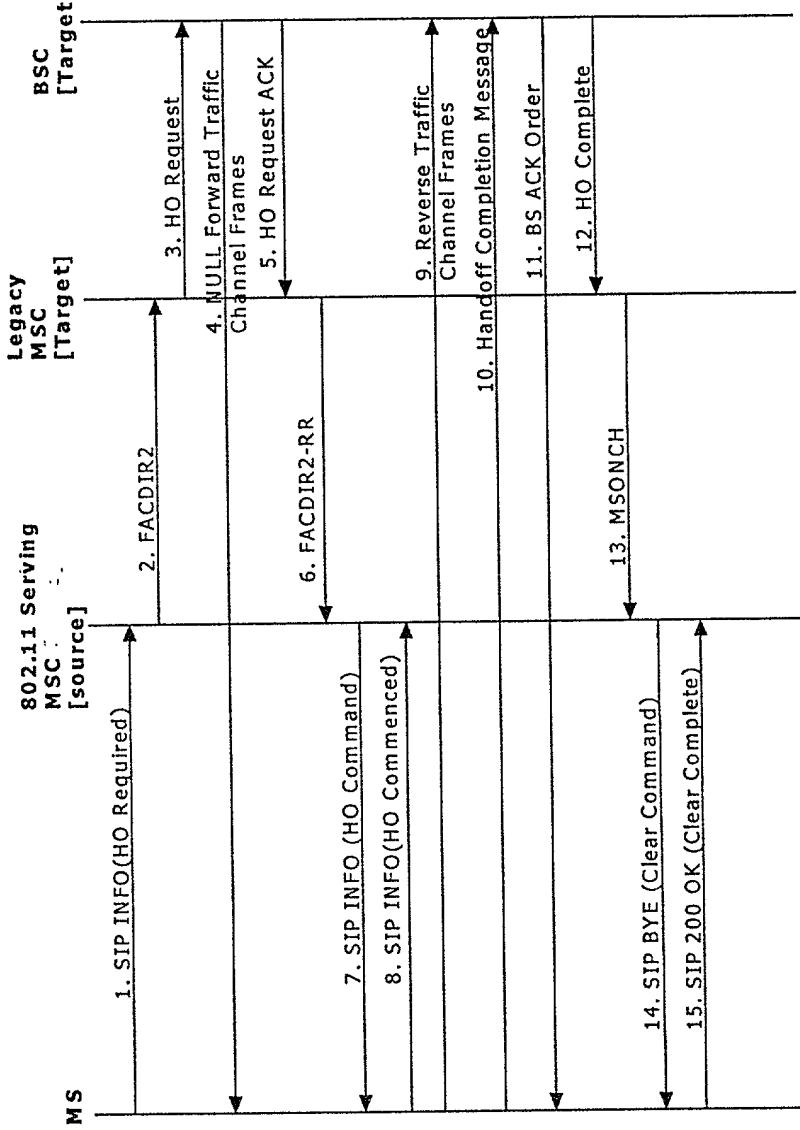


Figure 14

Hard Handoff from 802.11 MSC to Legacy GSM MSC

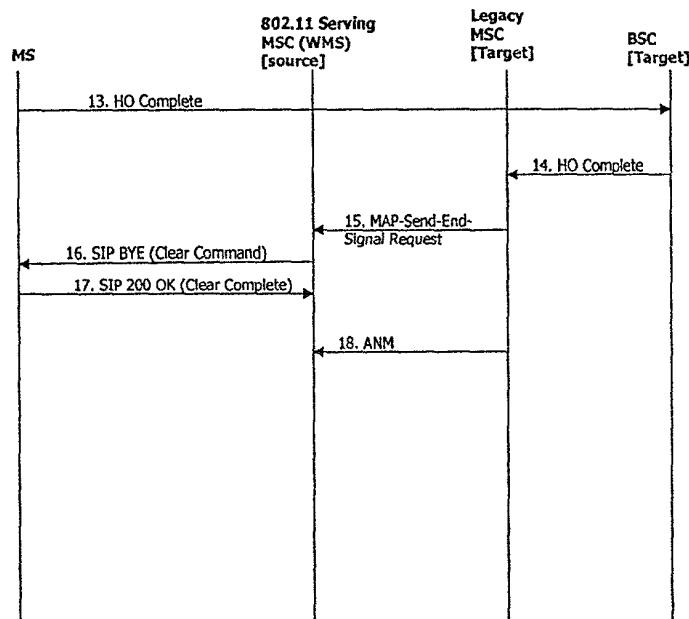
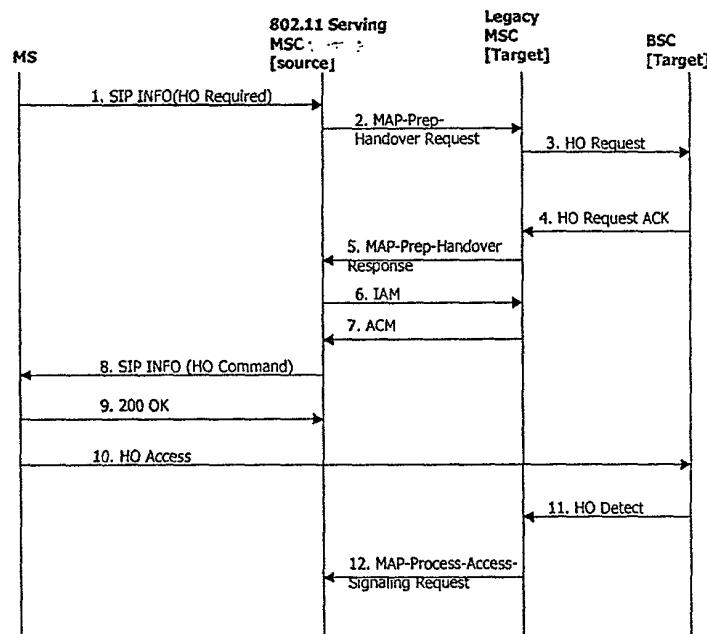
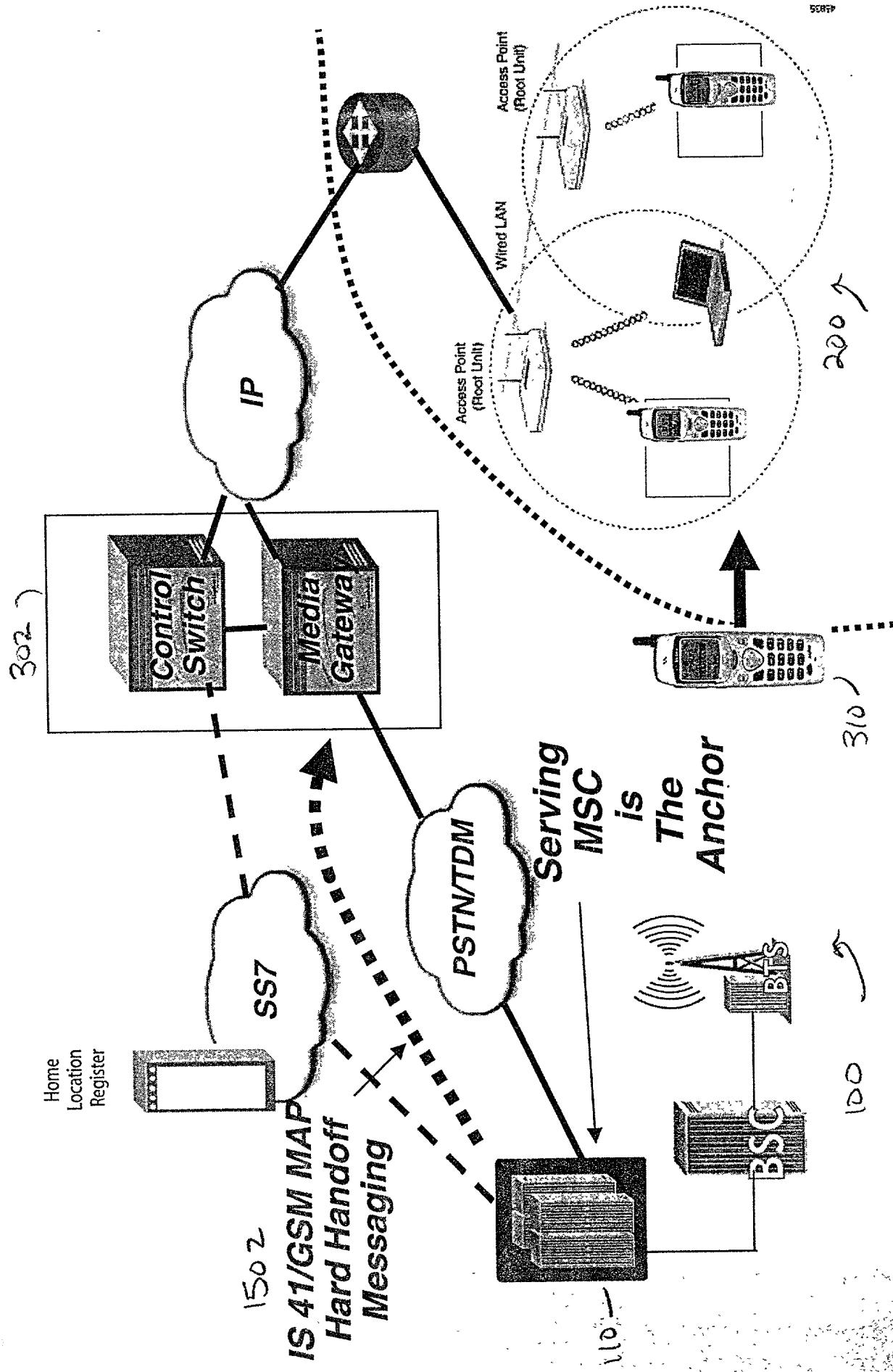


Fig. 15



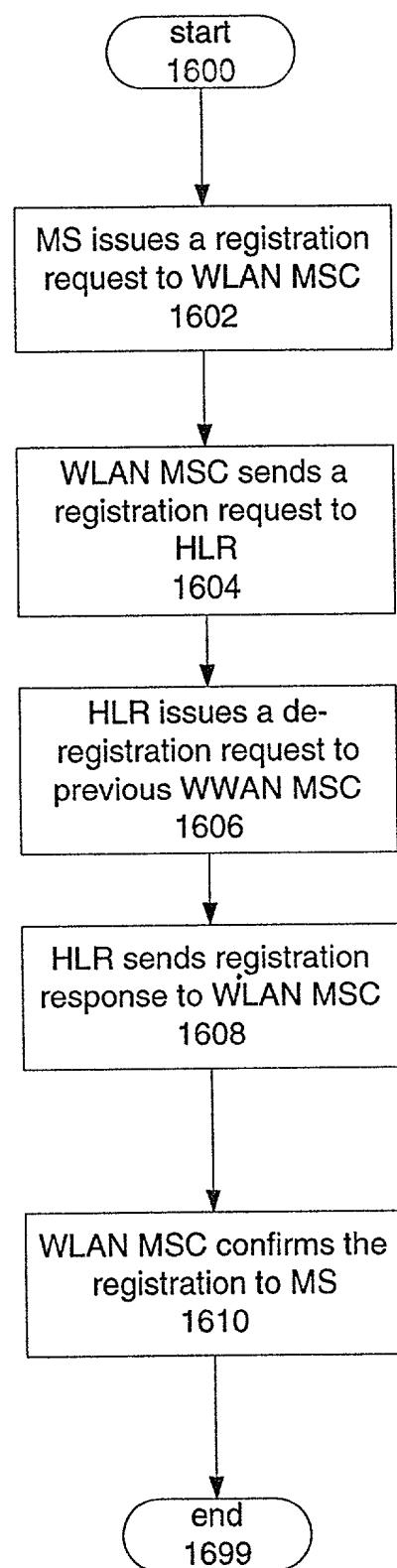


Fig. 16

Figure 17

MS enters 802.11 MSC area from IS41 MSC area

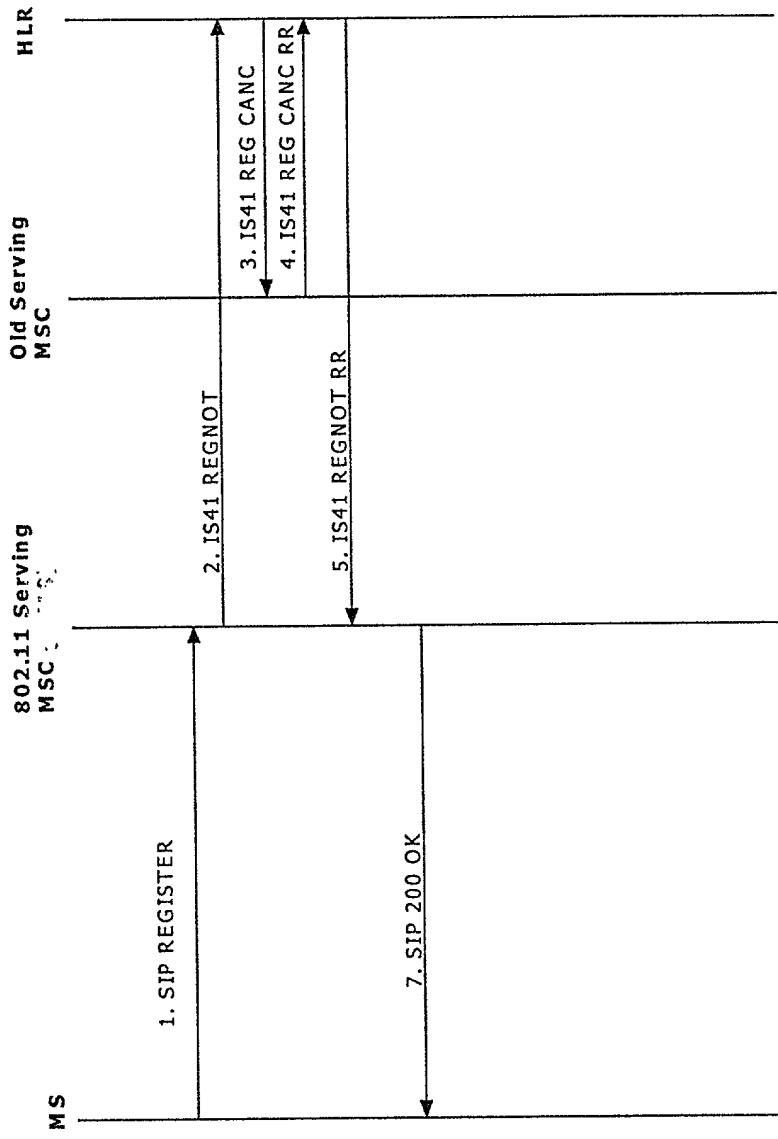


Figure 18

MS enters 802.11 MSC area from GSM MSC area

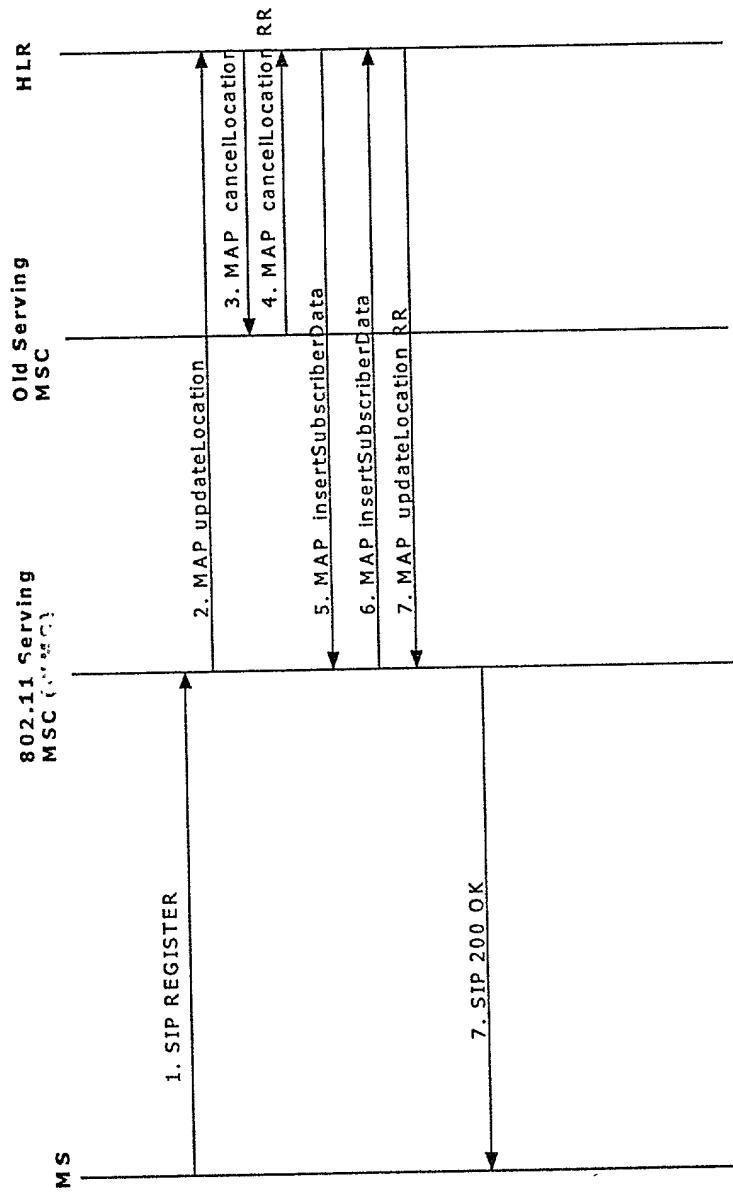


Fig. 19

3GPP2*3GPP3GPP

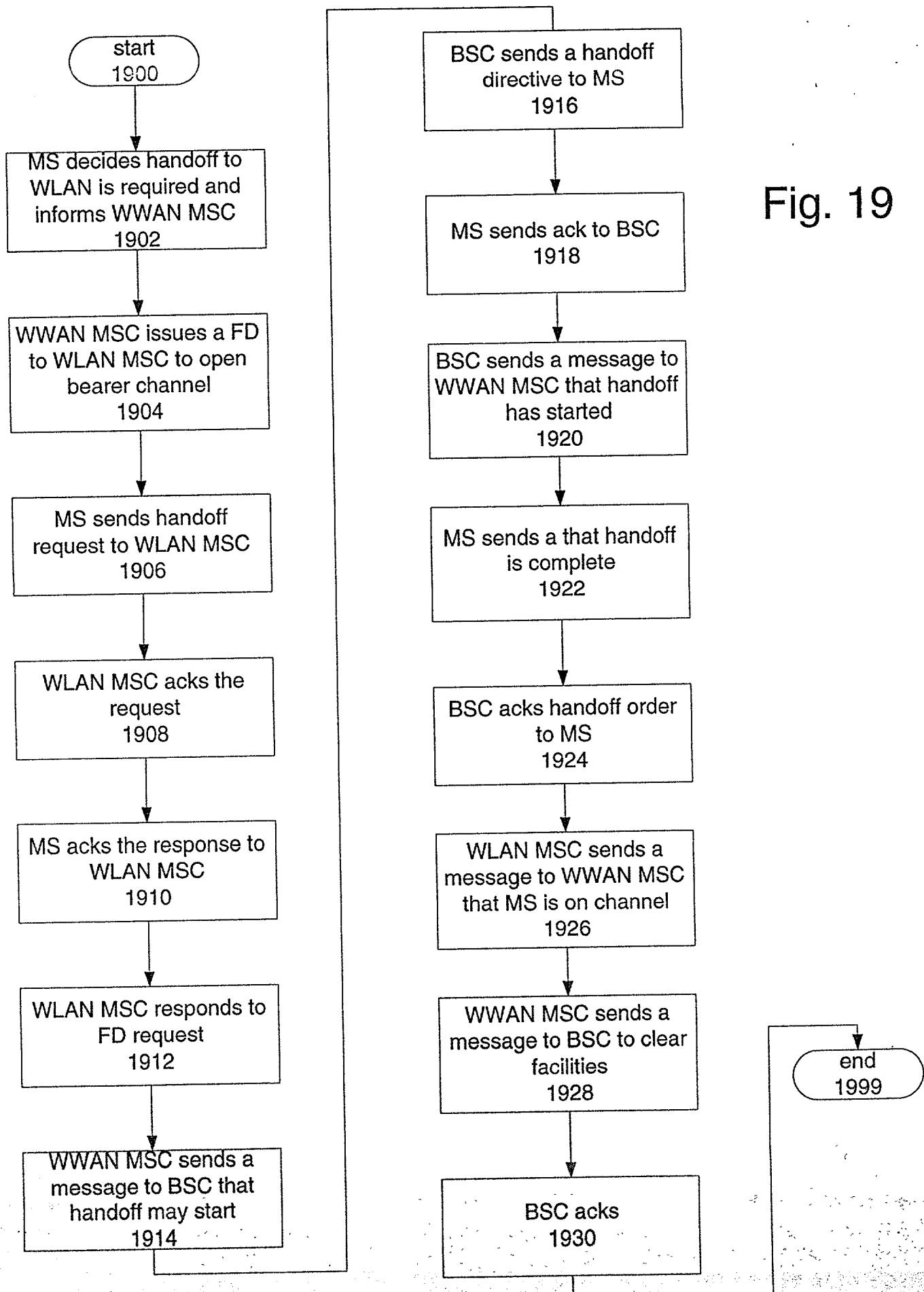


Figure 20

Hard Handoff from Legacy IS41 MSC to 802.11 MSC

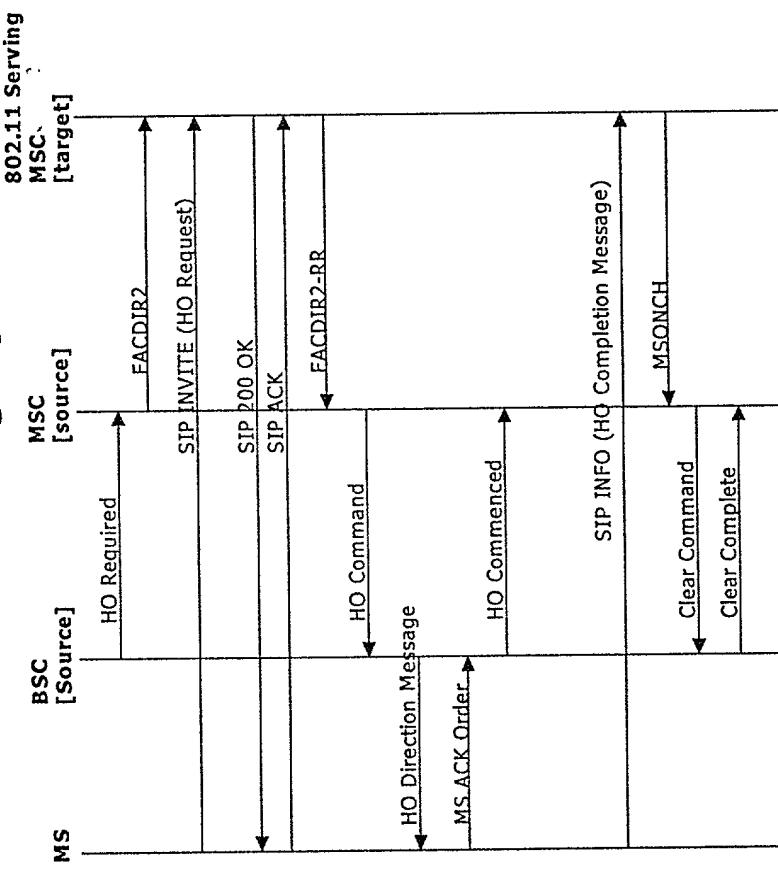


Figure 21

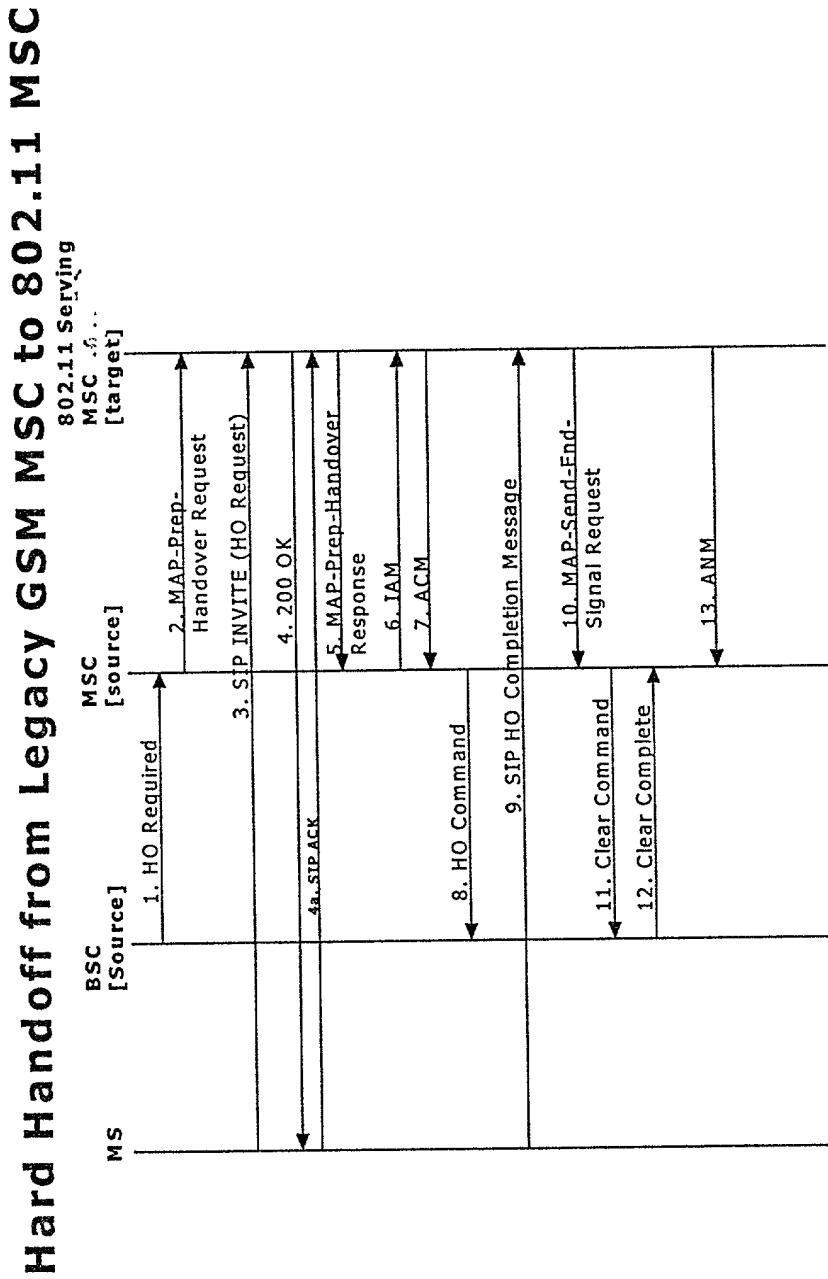


Figure 22

Delivery of Short Message Service in 802.11 MSC area

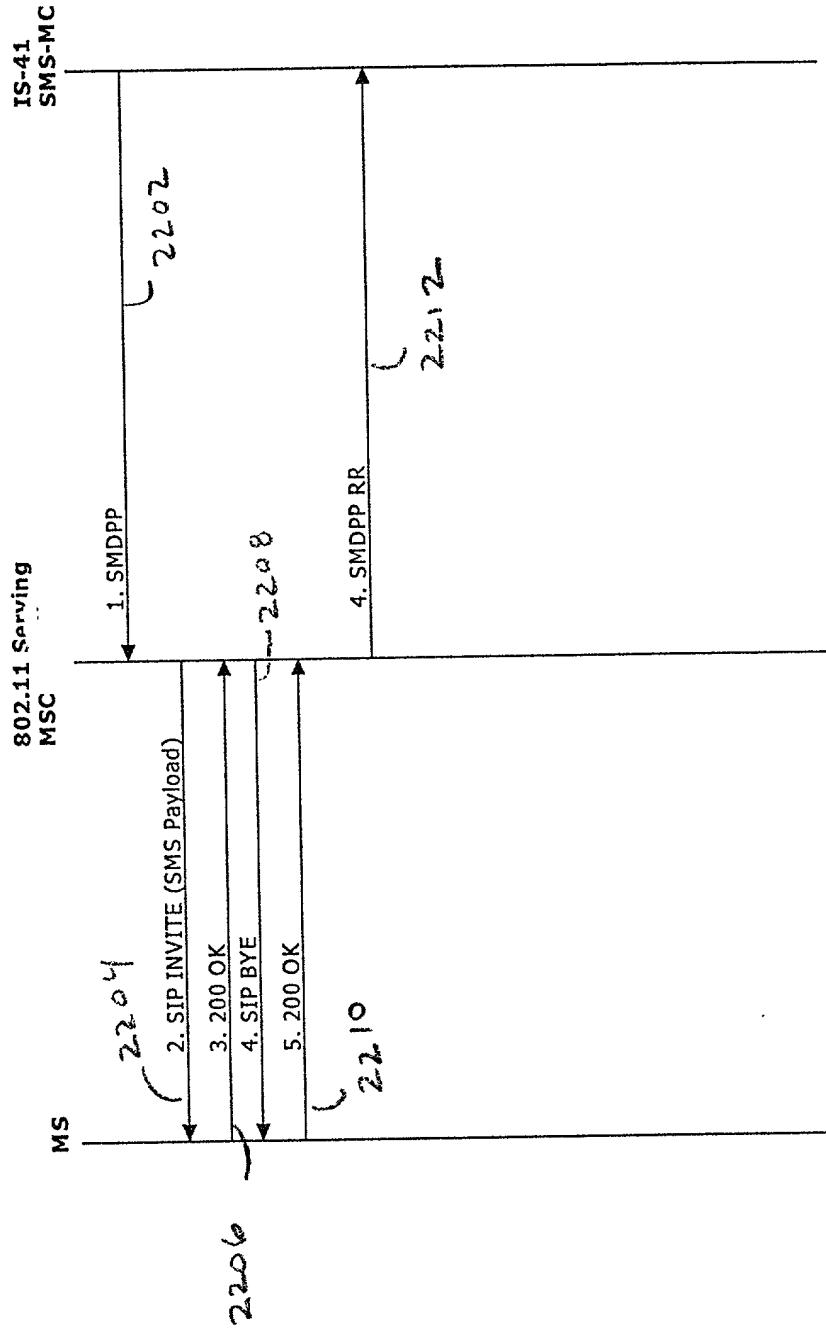


Figure 23

Delivery of IS41 MWN while in 802.11 MSC area

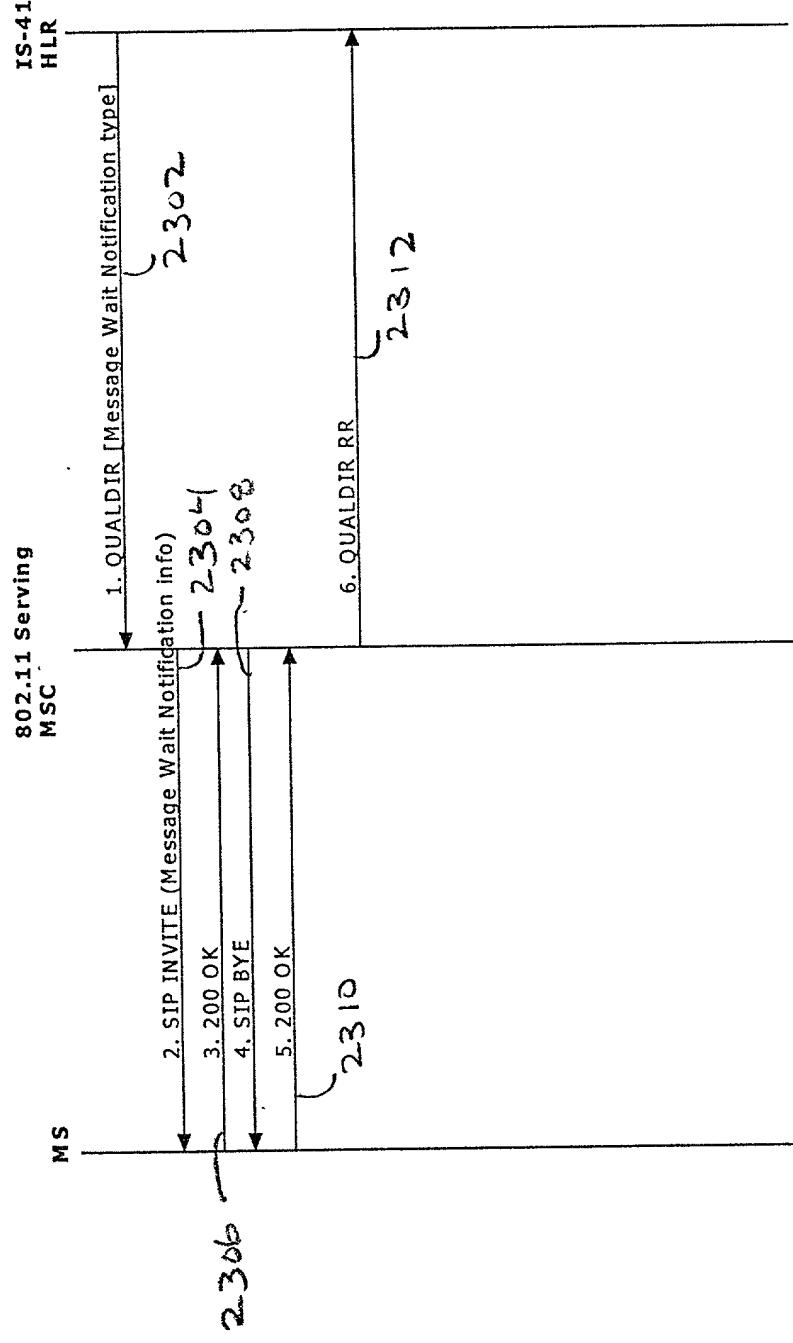


Figure 24

Intra Enterprise call (CDMA/IS41)

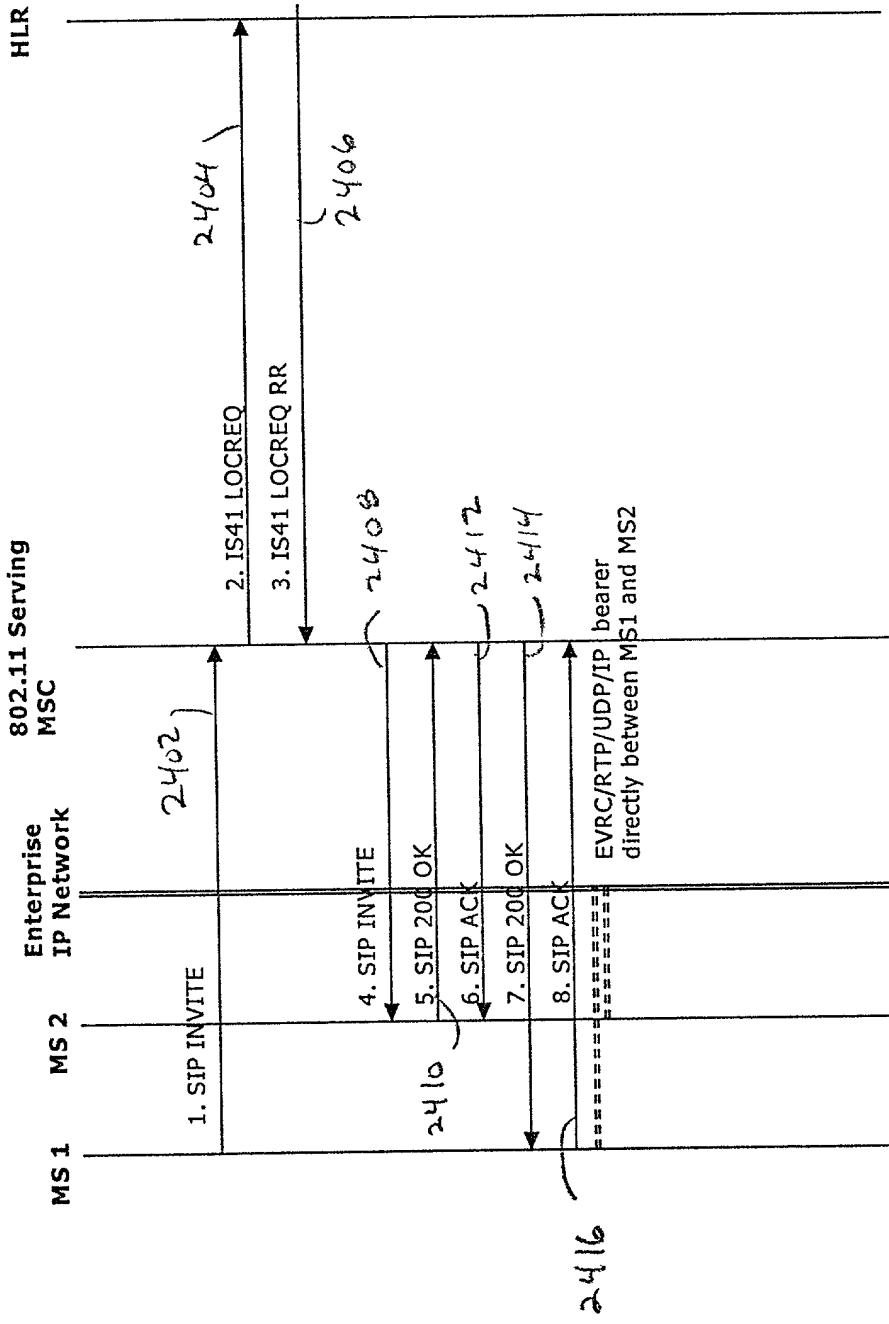


Figure 25

Intra Enterprise call (GSM / MAP)

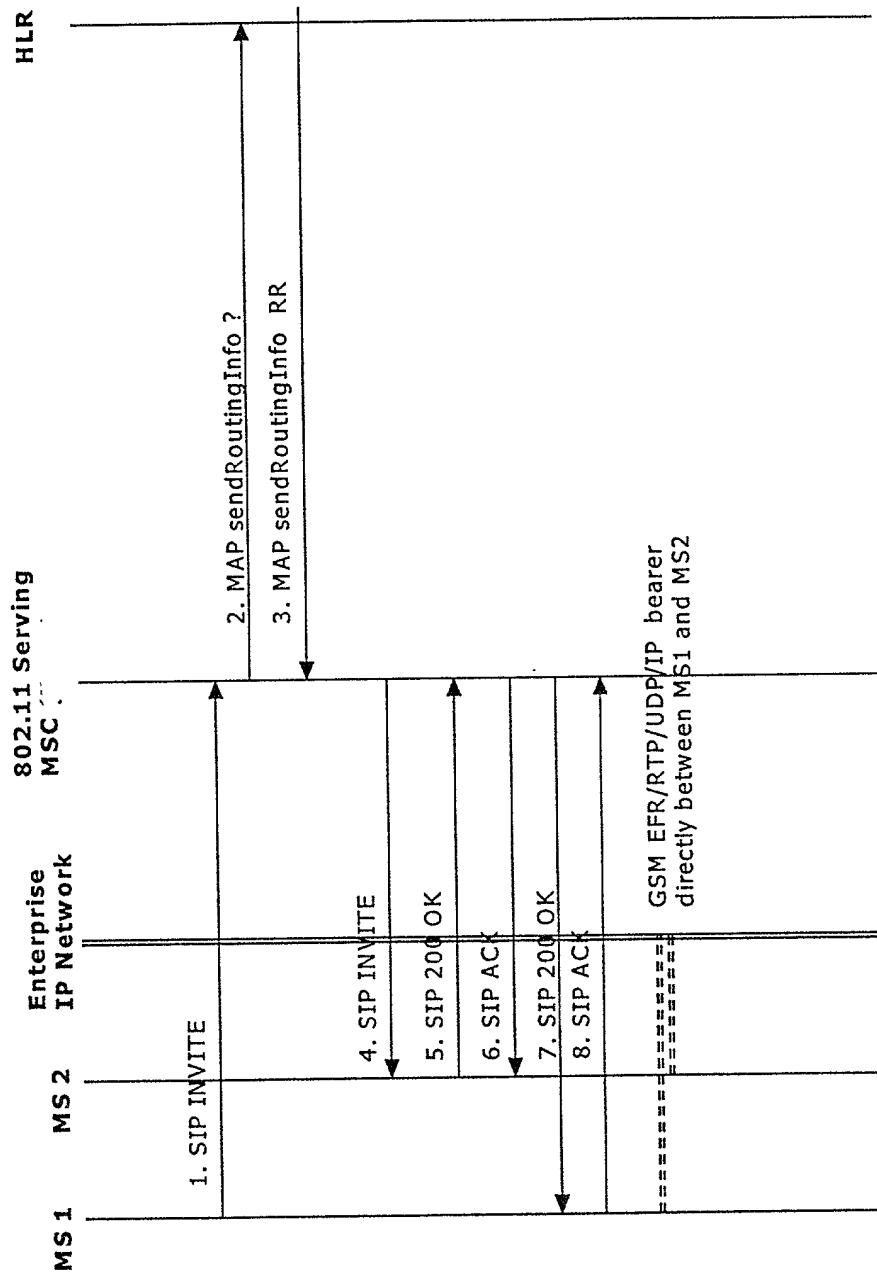


Figure 26

Enterprise to PSTN call (CDMA/IS41)

The diagram illustrates the sequence of events for an Enterprise to PSTN call (CDMA/IS41) across three time slots: 2602, 2604, and 2606.

Participants:

- MS (Mobile Station)
- Enterprise IP Network
- 802.11 Serving MSC Control
- MSC Media Gateway
- HLR
- PSTN Switch

Sequence of Events:

1. SIP INVITE (MS → Enterprise IP Network)
2. IS41 LOCREQ (Enterprise IP Network → 802.11 Serving MSC Control)
3. IS41 LOCREQ RR (802.11 Serving MSC Control → Enterprise IP Network)
4. MGCP CRCX (Enterprise IP Network → MSC Media Gateway)
5. MGCP CRCX Response (MSC Media Gateway → Enterprise IP Network)
6. ISUP IAM (Enterprise IP Network → HLR)
7. ISUP ACM (Enterprise IP Network → HLR)
8. SIP 183 TRYING (Enterprise IP Network → MS)
9. ISUP ANM (Enterprise IP Network → HLR)
10. SIP 200 OK (Enterprise IP Network → MS)
10. SIP ACK (MS → Enterprise IP Network)

Annotations:

- Time markers: 2602, 2604, 2606, 2612, 2616, 2618, 2620, 2622.
- Protocol layers: 802.11 Serving MSC Control, MGCP, ISUP, SIP.
- Media gateway: MSC Media Gateway.
- Switches: HLR, PSTN Switch.
- Link descriptions: EVRC/RTP/UDP/IP bearer between MS and Media Gateway; 64K PCM voice between Media Gateway and PSTN switch.

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Figure 27

Enterprise to PSTN call (GSM / MAP)

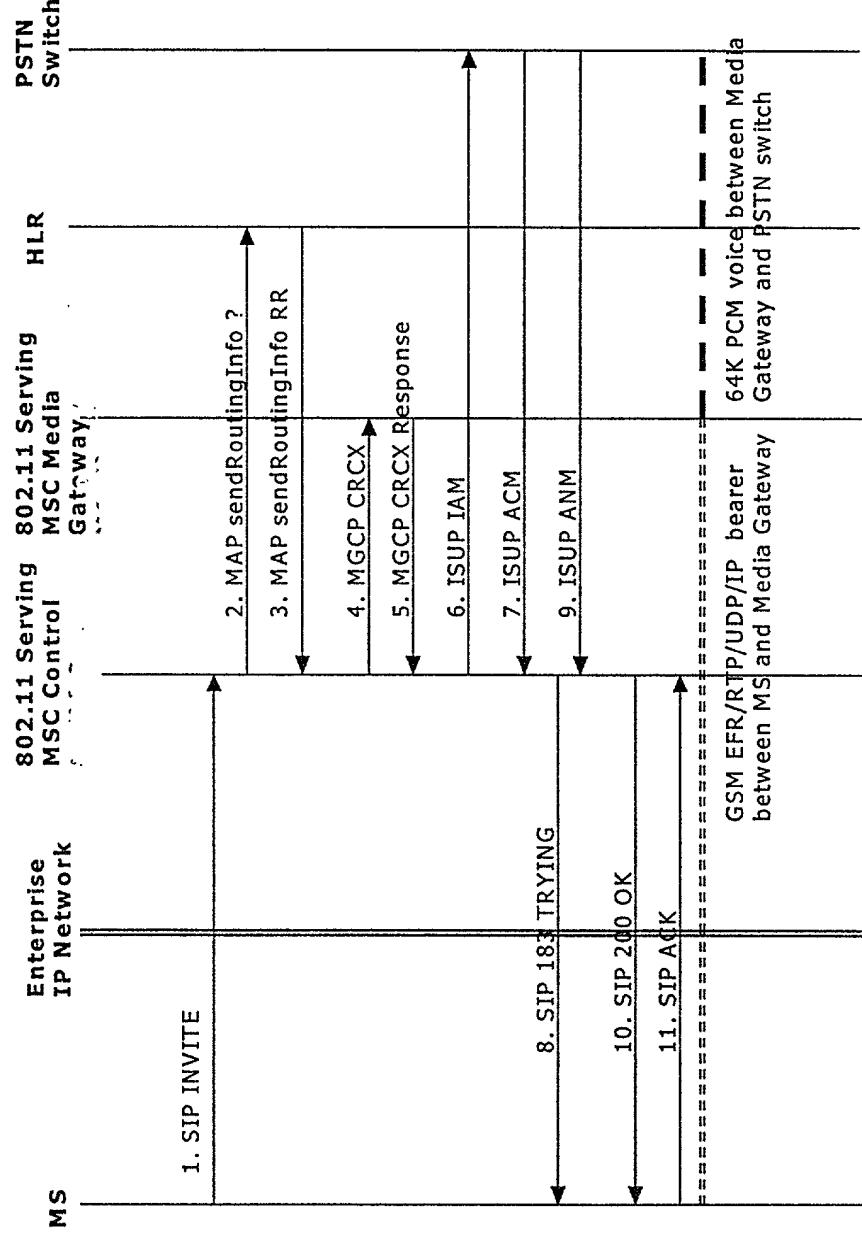


Figure 28

Enterprise to Macro GSM call with TFO (GSM / MAP)

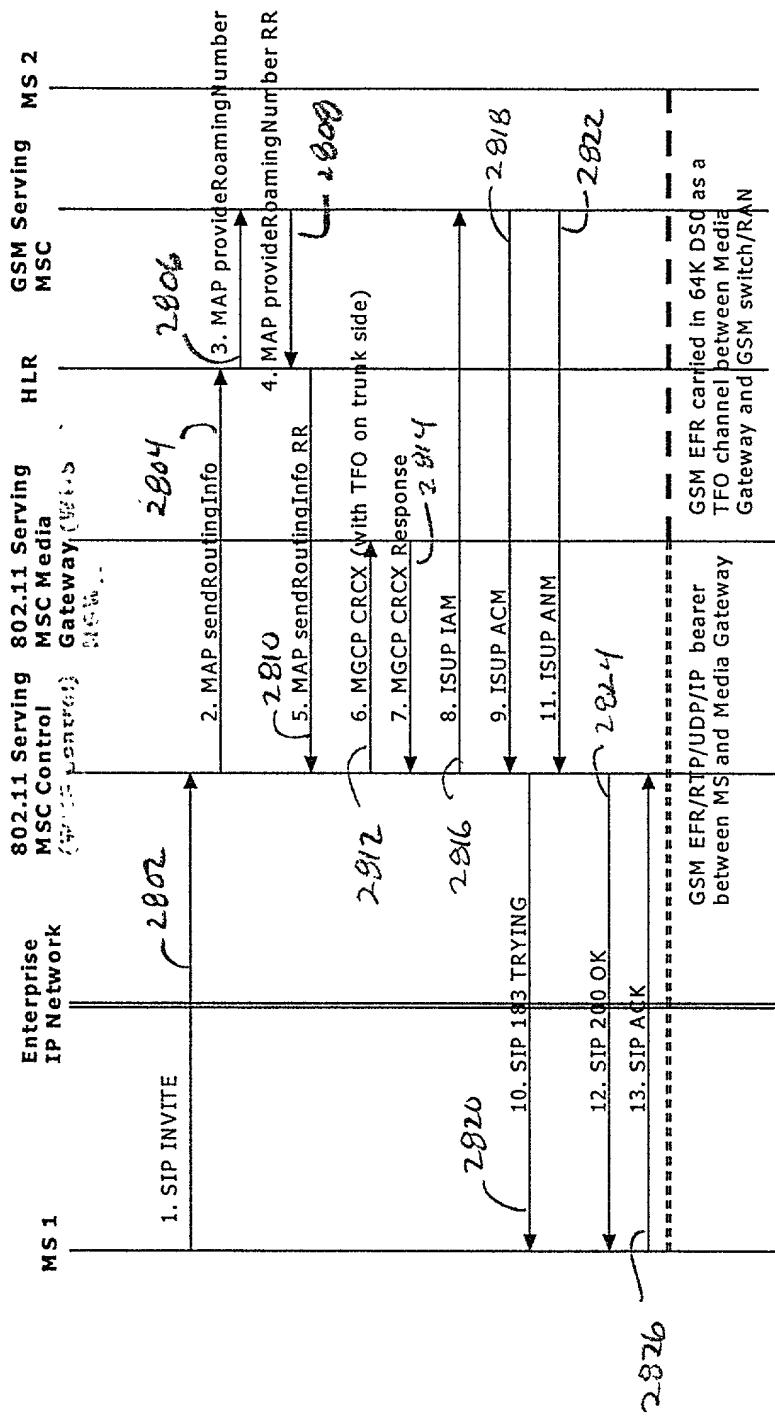
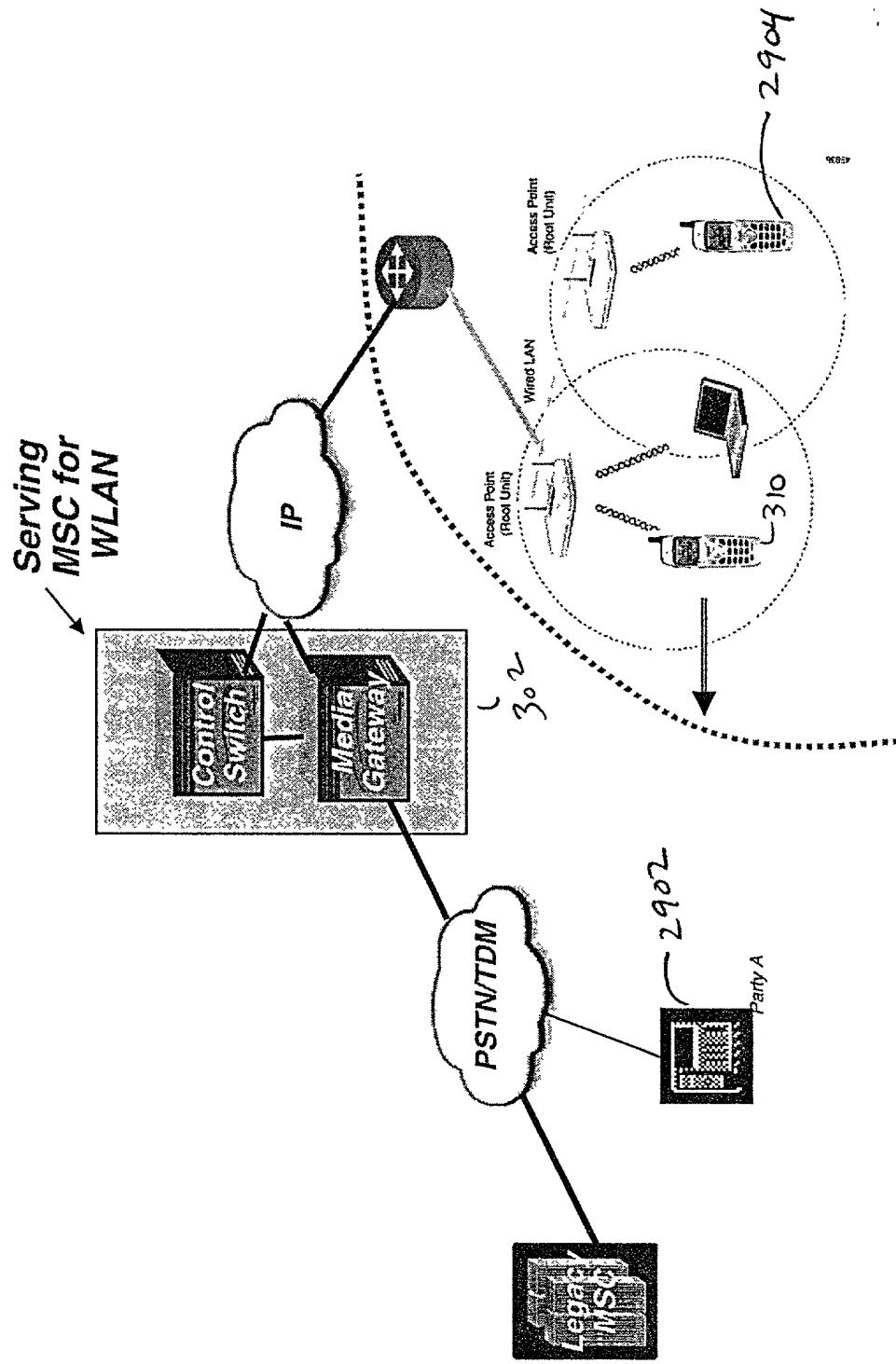


Figure 29



3002)

MS while in call with Party A
determines imminent handoff

3001)

MS asks WLAN switch for TLDN

3006)
MS detects lack of WLAN
Connectivity.
Asks WWAN switch to connect
call using TLDN

3008)
WLAN switch detects lack of
Connectivity to MS.
Puts Party A on hold.

3010)
WWAN switch routes call to
WLAN switch

3012)
WLAN switch recognizes TLDN;
Connects to party on hold

Fig. 30

Fig. 3.102 * GPRS MOBILE

